Ending pessimism in the tropical drylands

Dryland agriculture has long been viewed with pessimism and hopelessness. Tropical dryland areas are usually seen as resource-poor and perennially beset by shocks such as drought, trapping dryland communities in poverty and hunger and dependent on external aid. ICRISAT challenges this pessimistic view. Working with diverse partners in Asia and sub-Saharan Africa for almost four decades, ICRISAT has found that dryland farmers are ingenious and resourceful. By applying scientific innovations backed up with adequate policy, marketing and other support services, they are able to increase their crop productivity and incomes by several-fold, while improving the resilience of their lands and livelihoods. Hence, prosperity can be brought about in the tropical drylands. Hope should reign instead of pessimism. This is the overarching theme of ICRISAT’s new strategic plan for the next decade.

Vision, mission and approach

ICRISAT envisions “a prosperous, food-secure and resilient dryland tropics.” This will be relentlessly pursued through its mission, which is to “reduce poverty, hunger, malnutrition and environmental degradation in the dryland tropics.”

To achieve the foregoing, ICRISAT will adopt a partnership-based international agricultural research-for-development approach embodying science with a human face.

Aspirational targets

ICRISAT and its partners have set four bold targets to 2020 that will enormously benefit the well-being of the dryland’s poorest people

- Help halve rural poverty by increasing farm incomes through more productive, stable, diverse and profitable crops and crop products,
- Help halve hunger by contributing innovations that increase yields by 30% on a wide scale and through policy advice that stabilizes food prices and availability,
- Help halve childhood malnutrition by enhancing the nutrient content of staple food crops and helping the poor diversify their crops, delivering more nutritious and safer food, and
- Increase resilience of dryland farming through innovations that stabilize, safeguard and enhance natural resource capital, biological and systems diversity, and land health.
**Inclusive market-oriented development**

For a long time, dryland farm families have been marginalized out of the development loop. An inclusive (broad-based) strategy puts them into the mainstream to participate and reap the benefits of development. Moreover, an inclusive strategy will enable the poor, particularly women and the youth/children, to participate, rather than be sidelined, in the development process.

ICRISAT will implement research programs in ways that benefit smallholder farmers enabling them and their families to go beyond subsistence farming to produce surpluses that can be stored and sold to markets, paving the way for prosperity in the drylands.

Surplus produce, which is stored as food, serves as a buffer in times of hunger. Income from marketed produce enable farm families to purchase more food when needed, including inputs such as seeds, fertilizer, labor, tools, livestock, insurance and education. These will further raise farm productivity, kicking off a series of investments that bring about economic growth. As this is sustained, it creates a self-reinforcing pathway to prosperity. The foregoing describes a socio-economic process called **inclusive market-oriented development (IMOD)** on which ICRISAT’s new strategy is anchored as shown in the above figure.

**Systems perspective**

To pursue this pathway to prosperity, ICRISAT will employ a **systems perspective** in setting its priorities to ensure that all important issues are addressed holistically. At a macro level, systems thinking allows ICRISAT to study the interaction of various economic, social, political, physical and technological factors influencing tropical dryland agriculture. At a micro level, this perspective is valuable in viewing how the things influence one another within a dryland farming system. This way, a systems perspective enables ICRISAT to plan, implement and evaluate its research programs for optimum impact along the whole dryland agriculture value chain.

**Strategic thrusts**

To implement its strategy, ICRISAT mapped out these four research-for-development thrusts, which will generate products and innovations that help provide the poor with goods and services to participate in inclusive market-oriented development:

- **Resilient Dryland Systems** – Reducing vulnerability to drought and climate change while increasing crop diversity and value
- **Markets, Institutions and Policies** – Harnessing development pathways for inclusive prosperity
- **Grain Legumes** – Raising and securing legume productivity for health, income and sustainability
- **Dryland Cereals** – Increasing dryland cereal crop productivity to help end hunger.

**Critical focus areas**

Cutting across the strategic thrusts are a host of capacities that will be strengthened during the plan period and propelled by cultural change. These are monitoring, evaluation and impact assessment; gender and diversity analysis; geospatial science methods; modeling and scenario analysis; modern breeding platforms; information and communication technology; knowledge sharing and innovation; and fostering agro-enterprises.

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**About ICRISAT**

The International Crops Research Institute for the Semi-Arid-Tropics (ICRISAT) is a non-profit, non-political organization that conducts agricultural research for development in Asia and sub-Saharan Africa with a wide array of partners throughout the world. Covering 6.5 million square kilometers of land in 55 countries, the semi-arid tropics have over 2 billion people, and 644 million of these are the poorest of the poor. ICRISAT and its partners help empower these poor people to overcome poverty, hunger, malnutrition and a degraded environment through better and more resilient agriculture.

ICRISAT is headquartered in Hyderabad, Andhra Pradesh, India, with two regional hubs and four country offices in sub-Saharan Africa. It belongs to the Consortium of Centers supported by the Consultative Group on International Agricultural Research (CGIAR).

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